

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior version, and listings, of claims in the application:

Listing of Claims:

Claims 1-11 (canceled).

12. (New) A method for operating a fuel metering system of a motor vehicle, a fuel being delivered by at least one supply pump to at least one high pressure area and being injected by at least one fuel injector from the high pressure area directly into at least one combustion chamber, the method comprising:

detecting a pressure in the high pressure area using at least one sensor; and

adjusting the pressure in the high pressure area using at least one pressure regulating element;

wherein a change in pressure in the high pressure area over time is limited as a function of a specified injection quantity error.

13. (New) The method of claim 12, wherein permissible pressure gradient values for the high pressure area are stored in speed-dependent and load-dependent characteristic maps.

14. (New) The method of claim 12, wherein the limitation of the change in the high pressure area is specified for a time period between two rail pressure gradient computations.

15. (New) The method of claim 12, wherein the limitation of the change in the high pressure area is determined as a function of at least one of the following:

i) an instantaneous pressure in the high pressure area;

ii) a sampling rate of a pressure measurement in the high pressure area;

iii) an engine speed; and

iv) characteristic data of the supply pump.

16. (New) The method of claim 12, further comprising:

determining potential limiting values of a change in pressure in the high pressure area over time using at least two different techniques;

determining a minimum value of the potential limiting values by a comparison operation; and
selecting the minimum value as the limit for the change in pressure in the high pressure area
over time.

17. (New) A computer program for controlling a fuel metering system of an internal combustion engine of a motor vehicle, the computer program being executable on a control unit of an internal combustion engine and including a sequence of instructions for controlling:

detecting a pressure in a high pressure area of the fuel metering system using at least one sensor;

adjusting the pressure in the high pressure area using at least one pressure regulating element;

limiting a change in pressure in the high pressure area over time as a function of a specified injection quantity error.

18. (New) The computer program of claim 17, wherein the sequence of instructions is stored on a computer-readable data medium.

19. (New) A control unit for operating a fuel metering system of a motor vehicle, a fuel being delivered by at least one supply pump to at least one high pressure area and being injected by at least one fuel injector from the high pressure area directly into at least one combustion chamber, the control unit comprising:

a processor for controlling:

detection of pressure in the high pressure area using at least one sensor;

adjustment of at least one pressure regulating element for adjusting the pressure in the high pressure area; and

limitation of a change in pressure in the high pressure area over time as a function of a specified injection quantity error.

20. (New) A fuel metering system for an internal combustion engine of a motor vehicle, comprising:

at least one high pressure area;

at least one supply pump for delivering fuel to the at least one high pressure area;

at least one fuel injector for direct injection of the fuel from the high pressure area into at least one combustion chamber of the engine;

at least one sensor for detecting a pressure in the high pressure area; and

at least one pressure regulating element for adjusting the pressure in the high pressure area;

wherein the change in pressure in the high pressure area over time is limited as a function of a specified injection quantity error.